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C. L. KENNEDY & J. H. McGONIGAL.

POLISH ROD FASTENER.

APPLICATION FILED MAY 31, 1904.

FIG. 1.

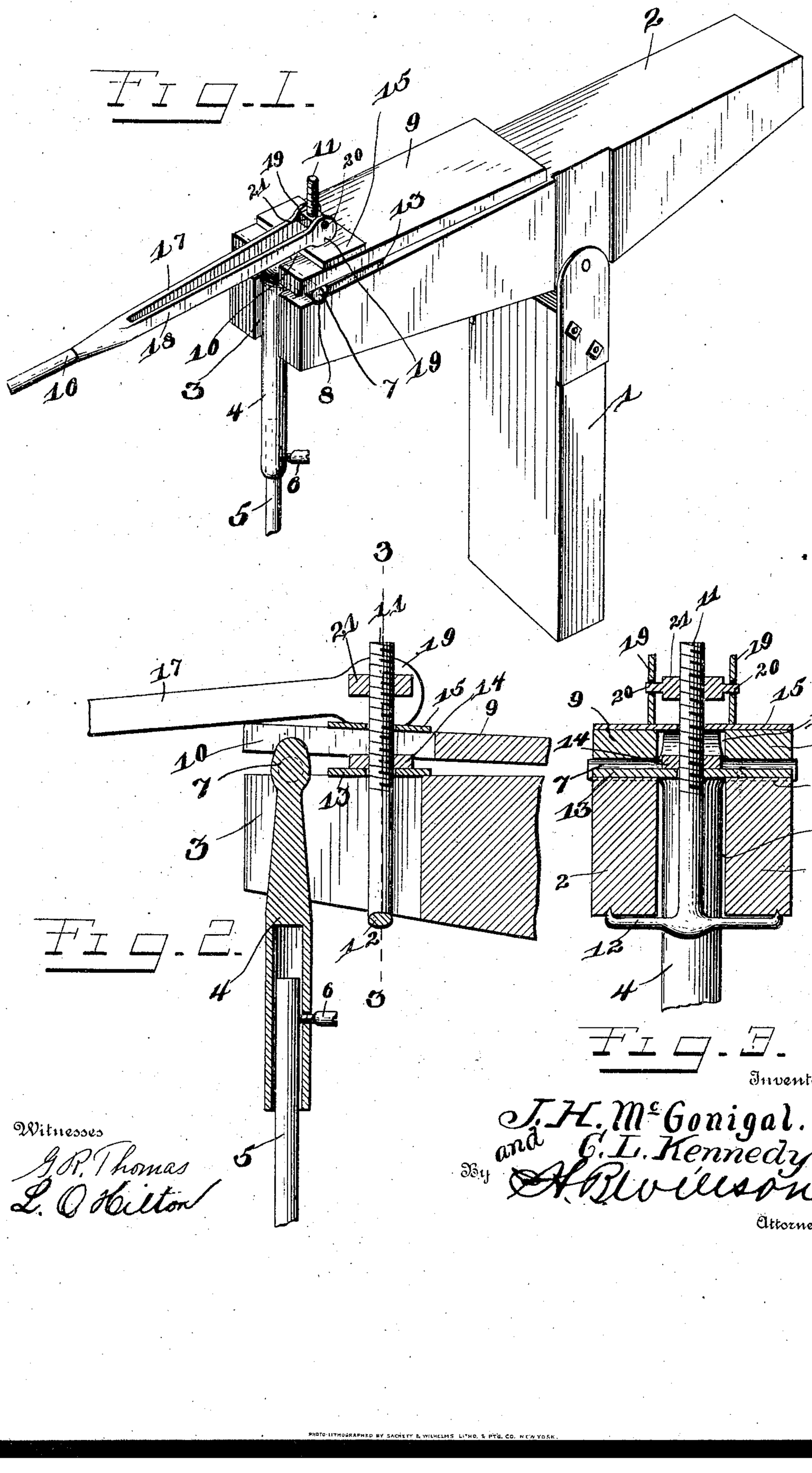

FIG. 2.

FIG. 3.

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UNITED STATES PATENT OFFICE.

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POLISH-ROD FASTENER.

SPECIFICATION forming part of Letters Patent No. 785,501, dated March 21, 1905.

Application filed May 31, 1904. Serial No. 210,597.

To all whom it may concern:

Be it known that we, CHARLES L. KENNEDY and JAMES H. McGONIGAL, citizens of the United States, residing at Sistersville, in the county of Tyler and State of West Virginia, have invented certain new and useful Improvements in Polish-Rod Fasteners; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to means for fastening the "polish-rods" to the walking-beams of oil and other wells.

The object of the invention is to provide a fastening whereby the rod may be connected to and disconnected from the beam in the shortest possible time and with a minimum amount of labor.

With this and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a perspective view showing the application of the invention. Fig. 2 is a vertical longitudinal section through the rod-actuating end of the beam and connecting parts, and Fig. 3 is a vertical transverse section on line 3 3 of Fig. 2.

Referring to the drawings, the numeral 1 represents the usual supporting post or standard, and 2 the walking-beam, pivotally mounted thereon in any preferred way. The operating mechanism for the beam is not herein shown, as the same forms no part of our present invention.

The rod-actuating end of the beam is provided with a receiving-slot 3 for the reception of the tubular chuck or holder 4, which receives the upper end of the polish-rod 5, which latter is fastened therein by means of a set-screw or other desired clamp or fastening 6 and is attached in practice at its lower end to the pump-rod, as will be readily understood by those versed in the art.

The upper end of the chuck or holder 4 is provided with a T-head 7, the arms of which are adapted to set in grooves 8 in the upper surfaces of the sides of the slotted or bifurcated end of the lever and to be held in engagement with such grooves by an adjusting board or plate 9. This board or plate 9 is bifurcated or slotted at its outer end, as shown at 10, to receive the upper extremity of the holder 4, and the arms of the bifurcations thereof bear upon the arms of the T-head of said holder. By means of the slot 10 the adjusting board or plate 9 may be moved back and forth to clamp or release the T-head 7, as will be readily understood, and thus effect the engagement of the chuck or holder with the beam or disengagement of the same therefrom.

The board or plate 9 is secured in adjusted position by means of fastenings comprising a bolt 11 extending upwardly through the slots 3 and 10 and provided at its lower end with a cross-head 12 to engage the under surface of the beam 2. Said bolt also passes through a washer or supporting-plate 13, resting upon the top of the beam, and is engaged by a securing-nut 14, which bears upon said washer or plate and holds the bolt from downward movement. The bifurcated end of the board or plate 9 is disposed above said washer and nut and is clamped in position by means of a clamping head or plate 15, bearing upon the upper surface thereof and adapted to be engaged and disengaged by means of a clamping-lever 16. This lever 16 is bifurcated to form arms 17 and 18, the ends of which are enlarged to provide heads 19, which heads are eccentrically pivoted upon pivot stems or trunnions 20, extending from the side of a nut 21, adjustably mounted upon the upper end of the bolt 11. By this construction the heads 19 are caused to form cams which are adapted when the lever is turned down rearwardly, as shown in Fig. 1, to have their long sides, or their surfaces which are farthest from the pivots 20, brought in contact with the plate 15 to force the latter down, and thereby cause it to secure the plate or board 9, and which when the lever is turned up to a vertical position or thrown forward beyond

the plane of the bolt 11 to have their short sides or points contiguous to said pivots to be brought to a position above the plate 15, thus allowing the latter to move upward on the bolt 11 and the board or plate 9 to be adjusted or released.

It will be observed that the clamping-lever is adjustable on the upper end of the bolt 11 through the medium of the nut 21 and that therefore after the chuck or holder 4 has been detached from the walking-beam the board or plate 9 and parts of the fastener securing the same may be adjusted to compensate for the removal of the chuck by simply turning the lever one or more revolutions to screw up the nut 21, whereby the cam-heads 19 may be brought into position to bind upon the plate 15 when the lever is again turned back to its rearward horizontal clamping position.

In the operation of the device the nut 21 is so disposed on the bolt 11 that a simple backward or forward swing of the lever 16 will cause the cam-heads 19 to bind upon or release the plate 15, and thus force the adjusting-plate 9 downward to hold the chuck or loosen it to allow the chuck to be detached. By this arrangement it will be seen that the chuck may be almost instantly connected to or disconnected from the walking-beam, and consequently the time and labor required to apply the parts for operation or release them to draw the pump-rod will be reduced to the minimum. When the chuck has been detached, as before set forth, by simply screwing up the nut 21 by turning the lever 16 the cam-head 19 will be brought into such close relation to the plate 15 in its lowered position that a rearward movement of the lever will cause the same to bind upon the board or plate 9, thus rigidly securing said parts against movement and against casual disconnection during the time the chuck or holder is detached. By the use of our invention it will therefore be apparent that the operation of connecting and disconnecting the polish-rod will be simplified and the amount of time and labor required to perform the same reduced to a material degree.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

In a device of the character described, the combination with a walking-beam provided with a slot, of a chuck or holder adapted to fit within said slot and provided with arms to rest upon the top of the beam, an adjusting board or plate adapted to bear upon said arms, a bolt passing upward through the slot in the beam and provided with a cross-head for engaging the under side of the beam, a lock-nut above the same, a clamping-plate on said bolt to bear upon the adjusting board or plate, a nut upon the bolt, and a cam-lever pivotally connected to said nut and having side portions to coact with said plate, substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

CHARLES L. KENNEDY.
JAMES H. McGONIGAL.

Witnesses:
R. L. GREGORY,
A. J. KENNEDY.